

AMENDMENT B (37 C.F.R. 1.111)

IN THE CLAIMS:

Please amend claims 1-4, and 8-11 in accordance with 37 C.F.R. 1.121. A marked-up version of the amended claims is attached herein on separate sheets and a clean version of the amended claims is also attached herein on separate sheets.

Please cancel claims 20-27 without prejudice as they are dependent upon previously cancelled claims.

REMARKS

Pursuant to 37 C.F.R. §1.111, reconsideration of the instant application, as amended herewith, is respectfully requested.

Entry of the amendment is requested.

Claims 1-4, 8-19 are presently pending before the Office. Applicant has amended the claims as noted above and canceled claims 20-27. No new matter has been added. Support for the amendments can be found throughout the specification as originally filed. Applicant is not intending in any manner to narrow the scope of the originally filed claims.

The Examiner's Action mailed 10/01/01 (Paper No. 7) has been carefully studied by Applicant and the undersigned counsel. The

amendments appearing above and these explanatory remarks are believed to be fully responsive to the Action. Accordingly, this important patent application is believed to be in condition for allowance.

Relying on 35 U.S.C. §112, second paragraph, the Office has rejected the subject matter of 1-4, 8-23 and 27 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner alleges that it is unclear how the phenol derivative is bonded to the clathrate compound to form the presently claimed molecular compounds. Applicant respectfully traverses the rejection and requests reconsideration.

At the first full paragraph of page 5 of the present specification discloses "The molecular compounds of the present invention are defined as compounds that two or more constituent compounds able to exist stably on their own are bonded by relatively weak interactions, other than covalent bonds, which are represented by hydrogen bonds and van der Waals forces".

The second full paragraph of page 278 of the present specification teaches, "It can be confirmed by such techniques as thermal analysis (TG and DTA), infrared spectra (IR), X-Ray diffraction patterns or solid NMR spectra that the substances obtained by these methods are certainly molecular molecular compounds----". Other methods of analysis are also disclosed to prove the existence of the molecular compounds. Page 9 to page 274 of the present specification lists examples of molecular compounds of the present invention.

The claims as amended no longer claim the specific structure of the molecular compounds, but are now either product by process claims or method claims.

Applicant submits that claims 1-4, 8-23 and 27, as originally filed, do define the legal metes and bounds of the invention. It is not the role of the claims to enable one skilled in the art to reproduce the invention but rather to define, for those skilled in the art the legal metes and bounds of the invention. Nevertheless, in order to advance the case to allowance, claims 1-4, 8-11 have been amended.

It is respectfully submitted that claims 1-4, 8-23 and 27 fully comply with 35 U.S.C. §112, second paragraph. Withdrawal of the rejection is respectfully requested.

CONCLUSION

Even though the initial claims in this important patent application were drawn to a new, useful and nonobvious invention, they have now been amended to increase their specificity of language. Applicant respectfully submits that the pending claims are patentable.

A Notice of Allowance is earnestly solicited.

If the Office is not fully persuaded as to the merits of Applicant's position, or if an Examiner's Amendment would place

the pending claims in condition for allowance, a telephone call to the undersigned at (727) 538-3800 would be appreciated.

Very respectfully,

Dated: 12/26/0/

Mason & Associates, P.A.

17757 U.S. Hwy. 19 N., Suite 500 Clearwater, FL 33764

(727) 538-3800 Reg. No. 40,693

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MARKED-UP VERSION OF AMENDED CLAIMS

1. (Amended) A molecular compound [containing, as a constituent] prepared by the method of reacting a phenol derivative represented by Formula (I)

$$\begin{array}{c|c} R_1 & R_2 \\ \hline \\ R_5 & R_4 \end{array} \qquad (I)$$

[[] wherein R¹ and R⁵ are[,] same or different[, groups] selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl or

[(]wherein Y and Z are selected from the group consisting of alkyl having 1 to 8 carbons, alkenyl having 2 to 8 carbons, alkoxy having 1 to 6 carbons, hydroxyl, [optionally] substituted amino, [optionally] substituted cycloalkyl, [optionally]

substituted phenyl or [optionally] substituted aralkyl[)];

R₂ and R₄ are[,] same or different [,]selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons or hydroxyl[, but they are groups selected from hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl] or

[(]wherein Y and Z are as defined above[)], in case R_1 , R_3 or R_5 is alkoxy having 1 to 4 carbons or hydroxyl;

R₃ is **selected from the group consisting of** hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl, Formula (III) or Formula (III)

[{]wherein X is selected from the group consisting of

[(]wherein w is 0, 1 or 2; u is 0 or 1; q is 0 to 4; R₁₄ and R₁₅ are[,] same or different[,] selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl, optionally substituted phenyl or optionally substituted aralkyl; R₁₆ is selected from the group consisting of hydrogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl, [optionally] substituted phenyl or [optionally] substituted aralkyl[)];

R6, R9 and R10 are[,] same or different[, groups] selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl, or

$$--so_2-y$$
 $-c-z$

[(]wherein Y and Z are as defined above[)];

 R_7 , R_8 , R_{11} and R_{13} are[,] same or different[,]selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons or hydroxyl, but R_{11} is [a group] selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl or

[(]wherein Y and Z are as defined above[)] in case $R^{1\,2}$ is alkoxy having 1 to 4 carbons or hydroxyl;

R12 is [a group] selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl or selected from the group consisting of

[(]wherein Y and Z are as defined above[)}], or <u>selected from the</u> group consisting of

[(]wherein Y and Z are as defined above[)], or
when R3 is of Formula (II), one of R1, R5, R6 and R9 is [a group
represented by] selected from the group consisting of

[(]wherein Y and Z are as defined above[)]
when R3 is of Formula (III), at least one of R1, R5 and R10 is [a
group represented by] selected from the group consisting of

[(]where Y and Z are as defined above[)], and
when R³ is [a group] selected from a group other than the group
consisting of Formula (II) or (III), either R¹ or R⁵ is [a group
represented by] selected from the group consisting of

[(]wherein Y and Z are as defined above[)], and
the phenol derivative is reacted with an organic compound under
conditions sufficient to form a molecular compound having the
phenol derivative as a constituent.

2. (Amended) A molecular compound [containing, as a constituent,] prepared by the method of reacting a phenol derivative represented by Formula (IV)

[[]wherein A is selected from the [a] group [selected from] consisting of

$$-S(O)w - -O - -C - (CH2)u - CH3 - CH3$$

[(]wherein w is 0, 1 or 2 and u is 0 or 1[)]; R18, R19, R21 and R24 are [,] same or different selected from the group consisting of [,] hydrogen, halogen, alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons; R17 is selected from the group consisting of

$$--sO_2-Y$$
 $--C-Z$

[(]wherein Y and Z are selected from the group consisting of alkyl having 1 to 6 carbons, alkenyl having 2 to 6 carbons, cyclohexyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, cyclopentyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, phenyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or halogen, benzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, phenethyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

α-methylbenzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, or naphthyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen[)], and R20, R22 and R23 are [,] same or different, hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons or the same groups as those for R17 []], and an organic compound, as the other reactant under conditions sufficient to form a molecular compound having the phenol derivative as a constituent.

3. (Amended) A molecular compound [, containing as a constituent,] prepared by the method of reacting a phenol derivative represented by Formula (V)

[[]wherein B is a group selected from

$$-S(O)w - O - C - CH_{2} - CH_{3} - CH$$

[(]wherein w is 0, 1 or 2 and u is 0 or 1[)]; R26, R27, R30 and R32 are [,] same or different[, groups] selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons; R25, R28, R29 and R31 are [,] same or different[,]selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons or



[(]wherein Y and Z are selected from the group consisting of alkyl having 1 to 6 carbons, alkenyl having 2 to 6 carbons, cyclohexyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, cyclopentyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, phenyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or halogen, benzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, phenethyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, α -methylbenzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, or naphthyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen[)], and at least one of R25, R28 and R29 is selected from the group consisting of

$$--so_2-y$$
 $-c-z$

[(]wherein Y and Z are selected from the group consisting of alkyl having 1 to 6 carbons, alkenyl having 2 to 6 carbons,

cyclohexyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, cyclopentyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, phenyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or halogen, benzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, phenethyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, α methylbenzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, or naphthyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen[]], and an organic compound as the second reactant under conditions sufficient to form a molecular compound having the phenol derivative as a constituent.

4. (Amended) A molecular compound [,containing as a constituent,] prepared by the method of reacting a phenol derivative represented by Formula (VI)

$$R_{33}$$
 R_{34} R_{35} R_{37} R_{36} (VI)

(,

[[]wherein R33 is selected from the group consisting of

$$--so_2-y$$
 $-c-z$

[(]wherein Y and Z are selected from the group consisting of alkyl having 1 to 6 carbons, alkenyl having 2 to 6 carbons, cyclohexyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, cyclopentyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, phenyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or halogen, benzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, phenethyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, camethylbenzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkenyl having 2 to 4 carbons or alkenyl having 1 to 4 carbons or

hydroxyl or halogen, or naphthyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen[)], and R₃₄, R₃₅, R₃₆ and R₃₇ are [,] same or different[,]selected from the group consisting of hydrogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl, halogen or the same groups as those for R₃₃[]], with an organic compound as the second reactant under conditions sufficient to form the molecular compound having the phenol derivative as a constituent.

- 8. (Amended) A molecular compound according to Claim 1, in which the molecular compound is a clathrate compound and a constituent is a host.
- 9. (Amended) A molecular compound according to Claim 2, in which the molecular compound is a clathrate compound and a constituent is a host.
- 10. (Amended) A molecular compound according to Claim 3, in which the molecular compound is a clathrate compound and a constituent is a host.
- 11. (Amended) A molecular compound according to Claim 4, in which the molecular compound is a clathrate compound and a constituent is a host.